

SOUTHERN STAR PARTY SEPTEMBER 2019 REPORT

Benni Kotze writes:

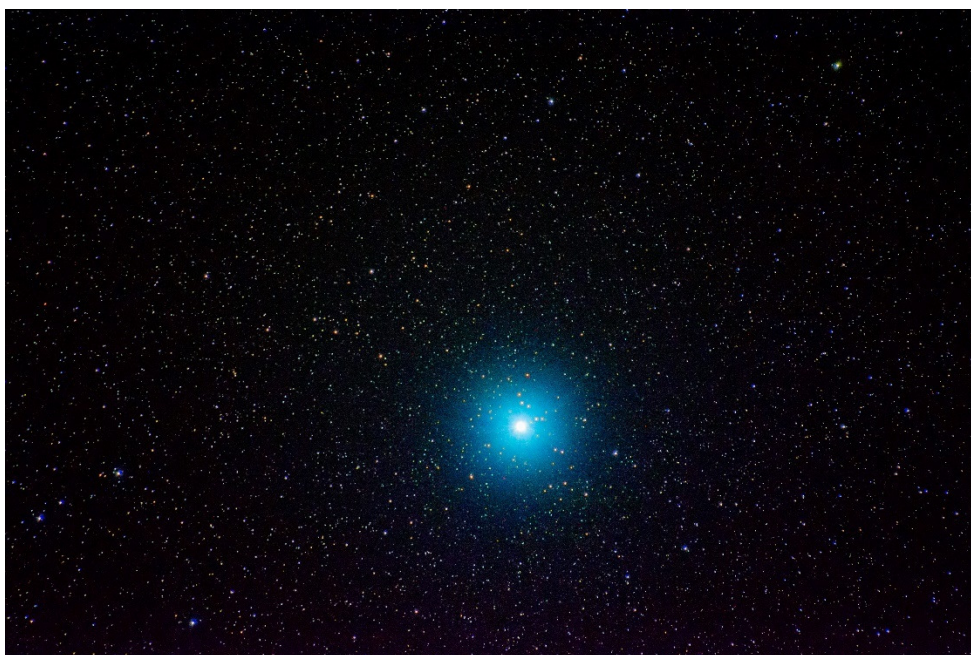
I have, in previous newsletters, made mention of the 14" telescope which was donated to the HAC by the University of Cape Town. Some three years ago a delegation of us went to inspect the feasibility of restoring the telescope to some form of usefulness. The conclusion was soon made that it had its useful life but now belongs in a museum. The rattling noise from inside confirmed the conclusion we came to. Derek, however, thought differently and this was the start of a series of successes he has had with the 14". His dedication and resourcefulness being the key to his success.

He is rather modest about his successes and showed reluctance in putting pen to paper. Peter and I insisted and requested him to send the report to us for scrutiny and for submission to the newsletter. Herewith his report:

"I arrived at Leeuwenboschfontein at 14h30 on Thursday afternoon after the usual 220 km 3¼ hour spectacular drive via the Hex River pass from Hermanus. Soon after, Peter and Bennie arrived. Pierre had to cancel due to last minute commitments.

I was looking forward to using my astrophotography tracking mount for the second time at Leeuwenboschfontein. We set up our equipment in front of the Lodge as usual with weather predictions looking Ok for Thursday and Friday but cloudy and rain on Saturday night.

Peter and Bennie quite quickly got their go to scopes aligned and working but I struggled a bit to find the Octans group of 4 stars to lock my tracker on the South celestial pole. Eventually I gave my laser pointer to Auke and asked him to keep it more or less pointed to where he thought the South pole was, then I managed to get it lined up. I had problems the previous time with the tracking of my zoom lenses, although the 35 mm fixed focus lens worked fine, so I made an additional balancing arm to fit to the camera thinking that might be the problem. I had also found free camera control software (DigicamcontrolA) to run my Nikon, where previously only the proprietary and very expensive Nikon software had been available. I did a test run to get the focus right using Sirius and was very happy with how it worked. I took the following image and it turned out better than expected:



Sirius, F6.3, ISO 1600, focal length 300 mm, tracking 60 seconds, Nikon D7100

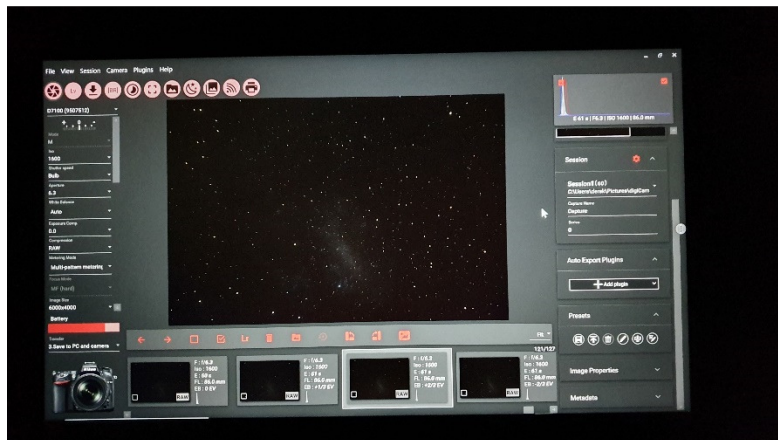
I then turned my attention to the UCT C14 scope and although the seeing was rather good and the image was fairly sharp as a result of improving the collimation last time with Bennie's help, I kept seeing some spikes on one side of the brighter objects. So I turned it to Sirius and defocused the scope so that the image formed a doughnut shape and you could see the centre wasn't perfectly aligned. So I fetched the correct hex key and asked a young chap, Johan, on a neighbouring scope to give me a hand.

I just loosened 1 of the 3 bolts by 1/8 turn and asked him to tighten one of the other 2 while I looked through the eyepiece, and voila! the image was perfect! Bennie and Peter had done some useful viewing, but we packed in by 10h30 pm. Wim Filmalter had given a talk on basic astrophotography and one thing he mentioned struck me as being a possible answer to my tracking problem with the zoom lenses. Of course I used only manual settings on the camera so all autofocus etc was switched off, but the zoom lenses have their own stabilisation switches which are independent of the camera, and previously I hadn't switched these off, thinking it was OK with everything automatic switched off on the camera only. As a result, the lens tried to stabilise itself when it was mounted on an already stable tracking mount. With this set to off I got up at 03h00 in the morning and got some decent images of the morning sky objects:

Large Magellanic Cloud



F 6.3, ISO 1600, focal length 86 mm, stacked with Deep Sky Stacker from 30 x 60 second images and 15 dark images. No post processing yet, just some contrast and level adjustment in Lightroom.



DigiCam Control software interface

I also mounted my camera directly on the C14 in prime focus and took the following single image of Orion:



This was a single 5 second exposure.

On Friday mid-morning I set up the solar scope which Johan Retief had donated to the club on my tracking mount and took the following image of the sun:



As you can see, there are no Sunspots

On Saturday lunchtime we had the traditional communal braai in the lapa. This was a great opportunity to network with some of the attendees. In the afternoons we had short lectures from a few of the attendees.

During the day on Saturday we had interesting short talks from Dr Danielle Groenewald, Jay Fox, Wendy Vermeulen, Christine Kersting, Pamela Cooper and Auke Slotegraaf.

We left after breakfast on Sunday having had a mostly fulfilling experience once again (Benie had some setbacks with alignment on Friday evening, and came to the conclusion it was Wi-Fi interference from several Wi-Fi capable scopes that was the root of the problem!) at the SSP. We left just in time as the rain came down in buckets on Sunday morning."